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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,219	09/29/2003	James E. Baack	119166.001023 (70-03-014)	2519
38851	7590	05/03/2007	EXAMINER	
GARDERE/EDS			RIAD, AMINE	
GARDERE WYNNE SEWELL INTELLECTUAL PROPERTY				
3000 THANKSGIVING TOWER				
1601 ELM STREET				
DALLAS, TX 75201-4761				
			ART UNIT	PAPER NUMBER
			2113	
			MAIL DATE	DELIVERY MODE
			05/03/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/674,219	Applicant(s) BAACK, JAMES E.	
	Examiner Amine Riad	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 2-5 and 8-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 7 and 22-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) <i>AL</i></p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br/>Paper No(s)/Mail Date _____</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____</p> |
|---|--|

### **Detailed Action**

Claims 1-24 have been presented for examination.

Claims 22-24 are new.

Claims 2,3,4,5,8,9,10,11,12,13,14,15,16,17,18,19,20,21 have been cancelled.

Claims 1,6,7,22,23, and 24 have been rejected

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,6,7,22,23, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Aija U.S. Patent 6,928,579 in view of Schoenthal U.S. Patent 7,111,194.

In regard to claims 1 and 22,

Aija discloses a method for updating software on a data processing system having a root device (Column 2; line 7) and a back-off (Column 2; line 8) device which is a mirror of the root device,

the method comprising:

- executing a preparation function on the data processing system; (Figure 4; Step S 20 "In step S 20, an indication is made in the non volatile memory of the client device 100 that the upgrade procedure has started) by presenting a user with at least one configuration question and storing a response to the at least one

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configuration question as a configuration data; (Figure 3; item S12 Critical?) & (Column 3; lines 43-45 "The downloading may occur automatically or may be initiated by a **user of the client device**")

- responsive to a determination that the preparation function completed successfully, breaking a root mirroring function of the data processing system such that changes to the root device do not affect the back-off device; (Column 5; lines 1-7 "This indication allows the client device 100 to determine whether the upgrade was interrupted before being finished. Then the current system partition is copied onto the backup system partition. The new software package is then installed on the backup system partition" [Examiner considers the moment the software gets installed in the back up partition, it is separated from the rest of the system in a way that changes affecting the current partition will not affect the back up partition])
- upgrading the root device of the data processing system; (Figure 5) and (Column 5; line 31)
- and responsive to a determination that the upgrading the root device of the data processing system was unsuccessful, recovering an original state of the root device using the back-off device (Column 5; lines 51-53) and (Figure 6)

Aija does not disclose

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- determining whether the data processing system can boot from the back-off device, and responsive to a determination that the data processing system cannot boot from the back off device, determining a reason for the inability of the data processing system to boot from the back-off device
- responsive to a determination that the upgrading was successful, remirroring the root device by setting a volume manager to use plexes on the back-off device as source plexes of volumes and rebooting the data processing system using the back-off device and

Schoenthal teaches:

- determining whether the data processing system can boot from the back-off device, and responsive to a determination that the data processing system cannot boot from the back off device, determining a reason for the inability of the data processing system to boot from the back-off device (Column 14; "Referring again to Fig 1, the CFO system configuration 100 allows graceful failover of clients from one storage system 200 to another in the event that a system fails. This system configuration is directed to increasing the availability of the storage service in the face of hardware failures, e.g., disk shelf failures, hardware component failures and failure of the communication lines to the shared storage network." Monitoring facilities within each of the storage systems detect when one of the system fails and gracefully migrate clients from the failed system to the surviving system.)

- remirroring (Column 18; lines 30-32 "According to the definition of mirroring a system administrator is able to take one of the plexes (V1P1 OR V2P2) offline for periodic maintenance.") & (Column 19; lines 43-47 "If a permanent failure is declared, then a decision is made that all of the data located at the failed site is invalid and only the data coupled to the surviving node/site is able to move forward. Thereafter, when the failed site/node is restored, the data at the failed site must be resynchronized with the data at the surviving site in accordance with the surviving storage system") the root device by setting a volume manager to use plexes (Column 12; lines 26-28 " A next object level comprises a mirror object 520 that is responsible for coordinating one or more copies of the volume (termed plexes)") on the back-off device as source plexes of volumes and rebooting (Column 5; lines 19-23 " When the unique volume names including the assigned ordinals, are exported to an operator or to a client it must be ensured that these names are consistent across configuration change or reboot operations" [Examiner brings this passage to the attention of the Applicant to show that the reference discloses rebooting from the redundant entity]) the data processing system using the back-off device (Column 19; lines 48-52)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate determining whether the data processing system can boot from the back-off device, determining a reason for the inability of the data processing system to boot from the back-off device, remirroring the boot device by setting a volume manager to use plexes on the back-off device as source plexes of volumes and

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rebooting the data processing system using the back-off device of Schoenthal into the method of updating software on a data processing system having a root device and back-off device which is a mirror of the root device of Aija.

A person of ordinary skill in the art would have been motivated to apply determining whether the data processing system can boot from the back-off device, determining a reason for the inability of the data processing system to boot from the back-off device, remorring the boot device by setting a volume manager to use plexes on the back-off device as source plexes of volumes and rebooting the data processing system using the back-off device of Schoenthal because as Aija discloses in the background "If any error occur during either the download, installation, or runtime of the software, it is desirable if the client device can recover from the error. Preferably, the client device reverts back to a previous version, of the software system. Furthermore, the installation itself, especially if it is automatic, must be performed so that it does not disturb the user's use of the device" Additionally, Schoenthal "However, a scenario in which both a storage system and its data set fails may occur under a variety of circumstances, including but not limited to, power failures at the system data set site (a temporary failure) and catastrophic loss of the physical location (permanent failure). As noted mirroring stores the same data on two or more disks so that if one disk fails, the mirror disk can be used to serve. The goal of volume mirroring is to be able to continue operating with either data set after failure precludes the use or access "

In regard to claims 6 and 23,

Aija discloses the method as recited in claim 1, further comprising: overlaying data in the managed file systems on the root device using data from the back-off device (Column 6; lines 5-7 "A new backup system partition is then created by copying the previously current system partition" [Examiner considers the creation of new backup system partition as overlaying the previous backup partition])

In regard to claims 7 and 24,

Aija discloses the method as recited in claim 1, wherein the data processing system is a server (Figure 1; item 100)

#### **Response to Applicant's Argument**

Applicant arguments' filed on February 23, 2007 have been fully considered, and are not persuasive.

In regard to the argument which states "The Aija reference does not teach or suggest the specific steps of presenting the user with at least one configuration question"

Examiner respectfully disagrees. Examiner points Applicant to Figure 3 where item S12 clearly shows a situation where the user is exposed to a question. The argument is consequently invalid.

In regard to the remaining arguments, although Examiner does not totally agree with Applicant, Examiner introduced Schoental to cover the limitation covered by the remaining arguments.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the




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event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amine Riad whose telephone number is 571-272-8185. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Amine Riad**  
**Patent Examiner**  
**4/25/2006**

  
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